IV. INTELLIGENCE COMMUNITY ANALYSIS OF IRAQ'S BIOLOGICAL WEAPONS PROGRAM

A. Background

- (U) Prior to the October 2002 National Intelligence Estimate (NIE) on *Iraq's Continuing Programs of Weapons of Mass Destruction*, the Intelligence Community (IC) prepared several coordinated papers that contained assessments of Iraq's biological weapons (BW) program. Prior to the departure of inspectors in 1998, IC assessments focused largely on the United Nations Special Commission's (UNSCOM) findings in Iraq, outstanding compliance issues, and the IC's assessment of the difficulties UNSCOM would face as it attempted to gain full Iraqi compliance with United Nations Security Council (UNSC) resolutions requiring its disarmament.
- (U) In February 1999, the Intelligence Community reported in *Iraq: WMD and Delivery Capabilities After Operation Desert Fox*, that Iraq probably retained the personnel, documentation, and much of the critical equipment necessary to continue and advance its weapons of mass destruction (WMD) and delivery programs. Iraq possessed biological agent²⁰ stockpiles that could be, or already were, weaponized and ready for use, but the paper did not state definitively that Iraq had biological weapons. The size of those agent stockpiles was said to be uncertain and subject to debate, and the location, nature, and condition of the stockpiles was also unknown. Iraq's production of biological weapons was assessed to be largely dormant, but the IC observed that Iraq could begin BW agent production within days of a decision to do so.

Post-Desert Fox Activities and Estimated Status of WMD Programs noted that in the wake of Operation Desert Fox, the "loss of United Nations (UN) inspectors on the ground and of airborne imagery from the UNSCOM U-2 flights make it difficult to determine whether activity detected at known dual-use²¹ sites is related to WMD production." It went on to note that Iraq may have already resumed some BW production but the IC had no reliable intelligence to indicate this, and assessed that in the absence of UN inspectors Iraq would expand its BW activities. A month

²⁰BW agent is a dangerous biological pathogen. The agent must still be disseminated or distributed effectively in a weapon or some other type of delivery mechanism to effect the intended target.

²¹The term dual-use, in a BW context, refers to technology that is useful both for biological warfare and legitimate biotechnical, agricultural and public health needs. An example would be a fermenter that is useful for both making vaccines and biological warfare agents.

later, the IC expanded this judgment in the August 1999 NIE, Worldwide BW program: Trends and Prospects (NIE 2000-12HCX), which stated that Iraq's "BW program has continued since the Gulf War, and we judge it is being revitalized now that the United Nations Special Commission (UNSCOM) monitoring and inspection activities are suspended." This NIE was updated in December 2000 (Worldwide BW Programs: Trends and Prospects Update (NIE 99-05CX/D)), when the IC adjusted upward its assessment of the BW threat posed by Iraq, citing new intelligence acquired in 2000. The IC's concern about Iraq's BW program began to grow in early 2000 when the Defense Human Intelligence Service (DHS) began reporting the debriefings of an Iraqi engineer, the human intelligence (HUMINT) source code named CURVE BALL, who claimed to have worked on a project in Iraq to construct seven mobile biological production units. The December 2000 Worldwide BW NIE stated in its key judgements that:

(U) Despite a decade-long international effort to disarm Iraq, new information suggests that Baghdad has continued and expanded its offensive BW program by establishing a large-scale, redundant, and concealed BW agent production capability. We judge that Iraq maintains the capability to produce previously declared agents and probably is pursuing development of additional bacterial and toxin agents. Moreover, we judge that Iraq has BW delivery systems available that could be used to threaten US and Allied forces in the Persian Gulf region.

(In December 2000, at the request of the National Security Council, the IC also produced an Intelligence Community Assessment (ICA) on Iraq's WMD programs that included an assessment of the state of Iraq's BW program. The paper assessed that Iraq had largely rebuilt declared facilities damaged during Operation Desert Fox and expanded WMD-capable infrastructure. Specific to BW, the paper assessed:

- We cannot confirm whether Iraq has produced . . . biological agents, although in the case of biological weapons, credible reporting from a single source suggests it has done so on a large scale and had developed a clandestine production capability.
- Our main judgment about what remains of Iraq's original WMD programs, agents stockpiles, and delivery systems have changed little: Iraq retains stockpiles of chemical and biological agents and munitions.
- IC analysts are increasingly concerned that Saddam has acquired a clandestine BW production capability which has the potential to turn out several hundred tons of unconcentrated BW agent per year.

- According to reporting from a single source, Iraq has constructed seven transportable via trucks and rail cars plants, some of which have produced BW agents. Although the information is unconfirmed, it tracks with UNSCOM evidence acquired in the mid-1990's that Iraq was considering such a program.
- Recent analysis suggests that Iraq has built and is operating a new castor oil plant. Castor oil has various civilian applications, but leftover bean pulp could easily be used to make the BW agent ricin.
- New construction at a few dual-use facilities formerly associated with the BW program has raised our concern about Iraqi intentions. Nevertheless, we are unable to determine because of the lack of intelligence information or observable signatures whether Iraq is diverting these or other of its many pharmaceutical, vaccine, or pesticide plants to produce BW agents.
- According to multiple sources, Iraq is bolstering its BW research and development, that in 1999 that such research & development (R&D) was being carried out while UNSCOM was active in Iraq. Iraq could easily have intensified and expanded this work over the last two years.
- A limited body of reporting suggests that Iraq is seeking through its extensive procurement network dual-use equipment and other materials for BW research.
- (U) The 2000 ICA also discussed at length the significant uncertainties associated with Iraq's failure to satisfy UN inspectors that it had destroyed all of its biological weapons, agent and growth media.
- (U) The IC published, *The BW Threat to the Global and US Agricultural Sectors* (ICB 2001-09) in March 2001, and *Smallpox: How Extensive a Threat?* (ICB 2001-34HC) in December 2001, which stated for the first time that "we think chances are even that smallpox is part of Baghdad's offensive BW program, although credible evidence is limited." A chart included in the December 2001 assessment indicated the likelihood that smallpox is part of Iraq's "current offensive BW program" was medium, which was defined on the chart as "40-60%." The chart also indicated that the "quality of information" to support this assessment was "poor."

- (U) While the Intelligence Community had adjusted upward its assessments of the BW threat posed by Iraq beginning with the 2000 Worldwide BW National Intelligence Estimate (NIE), the October 2002 NIE represented a shift in the IC's judgments about Iraq's biological weapons program. Many of the uncertainties that were expressed in all previous IC assessments about what was known about the BW program were not contained in the NIE's text. The starkest shift was the judgment that "Baghdad has . . . biological weapons." All previous assessments had stated that Iraq *could* have biological weapons. The other significant change was the assessment that all key aspects -- R&D, production, and weaponization²² of Iraq's offensive BW program were active and that most elements were now larger and more advanced than they had been before the Gulf War. Given this shift in the IC's assessments, Committee staff focused their work on the analysis of Iraq's biological warfare program in the 2002 NIE.
- (U) The Committee examined each of the IC's assessments outlined in the NIE and the available intelligence that supported those assessments. Committee staff also interviewed analysts and officials from the National Intelligence Council (NIC) and every intelligence agency involved in the biological section of the NIE including the Central Intelligence Agency (CIA), the Defense Intelligence Agency (DIA), the National Imagery and Mapping Agency²³ (NIMA), and the State Department's Bureau of Intelligence and Research (INR). The Committee also interviewed IC personnel responsible for intelligence collection regarding Iraq's BW capabilities and former UN inspectors.
- (U) The Deputy National Intelligence Officer (NIO) for Science and Technology assembled the biological warfare section of the NIE from a compilation of previous IC publications concerning Iraq's BW program. The material in the BW section was drawn from the Iraqi BW section of a draft update to the December 2000 Worldwide BW NIE that was titled, Worldwide BW Programs: Trends and Prospects Update, a September 12, 2002 CIA paper that was provided in support of the Director of Central Intelligence (DCI) testimony before the Senate Select Committee on Intelligence, the Iraqi BW section from the draft NIE, Nontraditional Threats to the US Homeland Through 2007, and the September 17, 2002 testimony and background material produced for the DCI for use with the Senate Select Committee on Intelligence and the Senate Armed Services Committee.

²²Weaponization refers to taking biological warfare agent and placing it in an effective delivery system, such as a spray tank system or artillery shell.

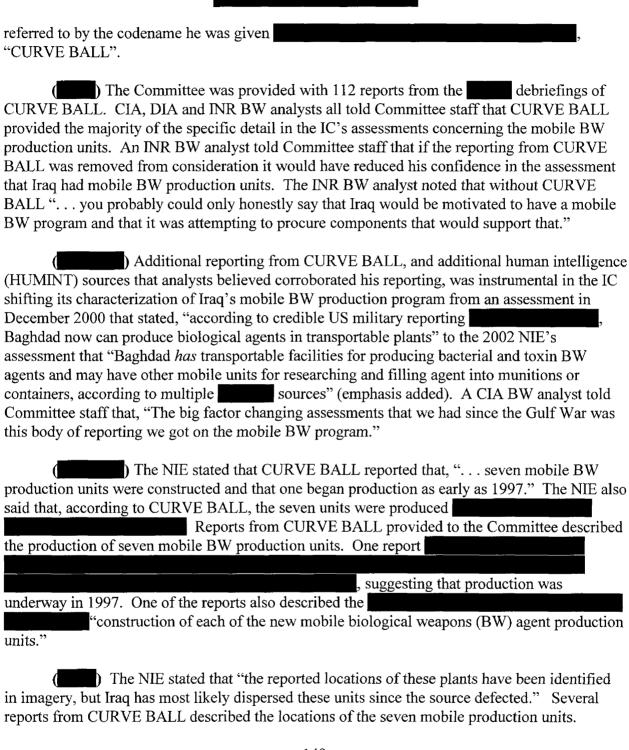
²³NIMA has recently been renamed the National Geospatial-Intelligence Agency (NGA)

- (U) The DIA analyst, who was a key player in producing the Iraqi section of the draft update to the December 2000 Worldwide Biological Weapons NIE, told Committee staff that the draft was revised in three successive rounds of electronic mail (e-mail) coordination with his IC counterparts. The DIA analyst told Committee staff that the comments he received from his IC counterparts in this e-mail coordination process did not significantly change any of the overall assessments, and only offered more detail and "refined our assessments." The DCI refused to provide the Committee with copies of draft revisions of the BW section of the October 2002 NIE. NIC officials and IC analysts told Committee staff that there was no significant dissent from any IC agencies concerning the October 2002 NIE's BW assessments.
- Larger Than Before," indicates, the primary assessment of the BW section of the NIE was that, not only had Iraq continued its BW program since 1991 in defiance of international efforts to disarm Iraq, but the program had advanced beyond what it had achieved prior to the 1991 Gulf War. This overall assessment is stated clearly in both the key judgments and the first sentence of the body of the BW section: "we assess that all key aspects R&D, production, and weaponization of Iraq's offensive BW program are active and that most elements are larger and more advanced than they were before the Gulf War." An important component of this overall assessment is a statement found in the second sentence of the NIE's key judgments section, "Baghdad has chemical and biological weapons" This statement was not repeated in the body of the NIE's BW section. The CIA BW analyst noted during an interview with Committee staff that in retrospect, believes that the sentence should have carried the caveat that we assess that Baghdad has biological weapons, to better reflect the uncertainties associated with this judgment.
- (U) To support the assessment that Iraq's offensive BW program was larger and more advanced than it was before the Gulf War, and that Iraq had biological weapons, the NIE makes the following assessments:
- Baghdad has transportable facilities for producing bacterial and toxin BW agents.
- Baghdad has been able to renovate and expand its fixed dual-use BW agent production facilities.
- We assess that Iraq has some BW agents and maintains the capability to produce a variety of BW agents.

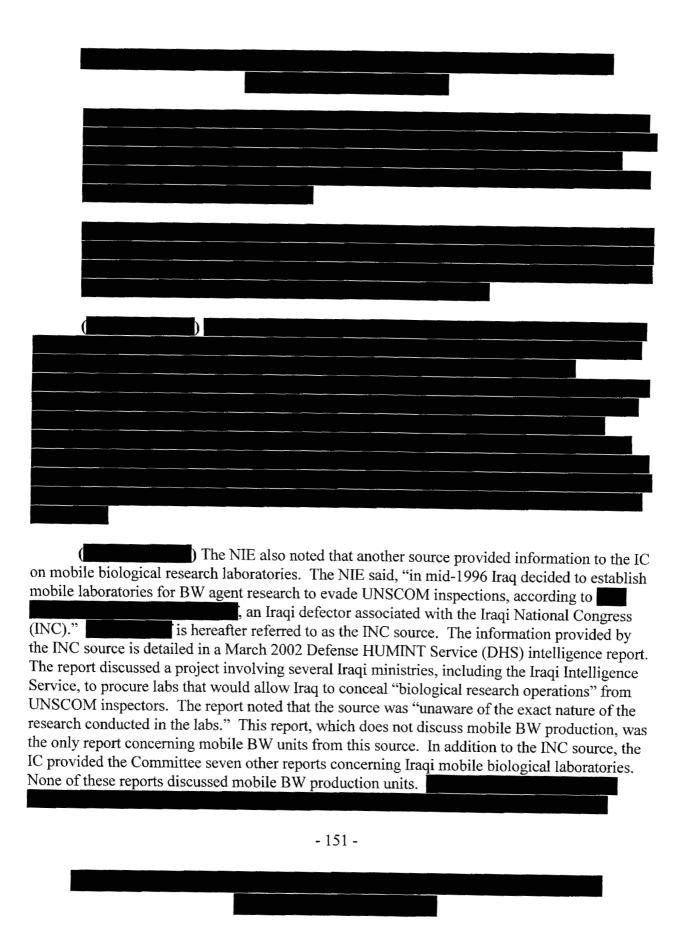
- In the absence of UN inspectors, Iraq probably has intensified and expanded research and development in support of Iraq's BW program. Baghdad probably has developed genetically engineered BW agents.
- We assess that Baghdad also has increased the effectiveness of its BW arsenal by mastering the ability to produce dried agent.
- Iraq's capability to manufacture equipment and materials . . . and to procure other necessary, dual-use materials . . . makes large-scale BW agent production easily attainable.
- The nature and amounts of Iraq's stored BW material remain unresolved by UNSCOM accounting.
- We judge that we are seeing only a portion of Iraq's WMD efforts, owing to Baghdad's vigorous denial and deception efforts.
- **(U)** The following sections outline the Committee's examination of the intelligence supporting the arguments behind the NIE's assessment that Iraq's offensive BW program was larger and more advanced than before the 1991 Gulf war.

B. Baghdad Has Transportable Facilities for Producing Bacterial and Toxin BW Agents

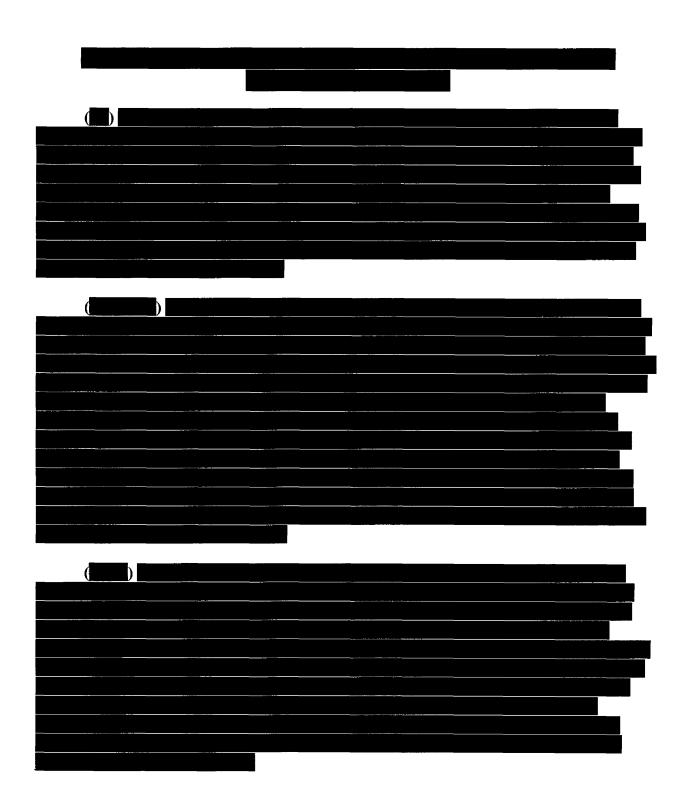
The NIE stated that "Baghdad has transportable facilities for
producing bacterial and toxin BW agents and may have other mobile units for researching and
illing agent into munitions or containers, according to multiple sources. Iraq has
oursued mobile BW production options, largely to protect its BW capability from detection,
according to a credible source."
A large part of the NIE's discussion of the alleged mobile BW production
units was based on information provided by a source described in the NIE as "a credible source'
and "an Iraqi defector deemed credible by the IC." The source was an Iraqi defector who had
since 2000.
He was believed by the IC to have been a project engineer involved in the design and production
of biological production facilities in Iraq.
. The source is hereafter

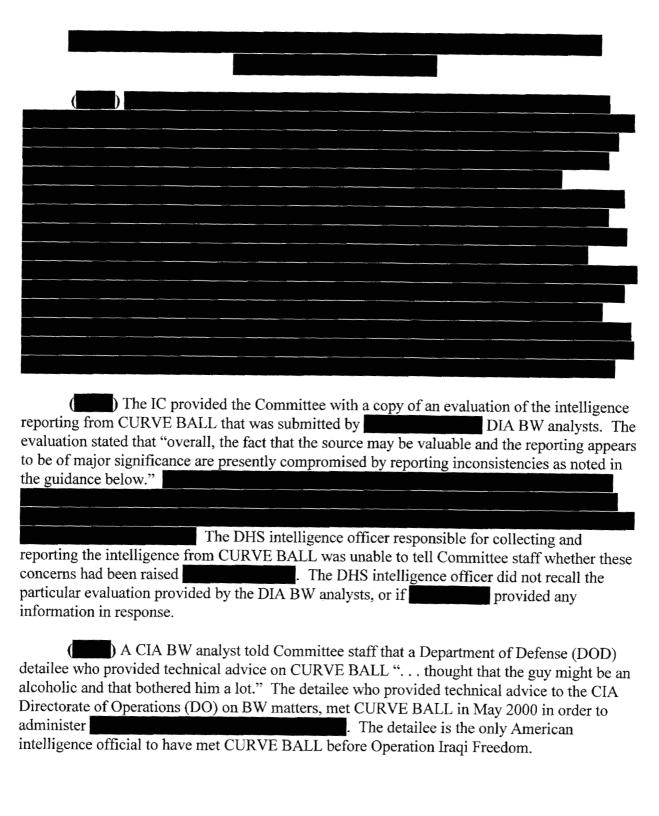


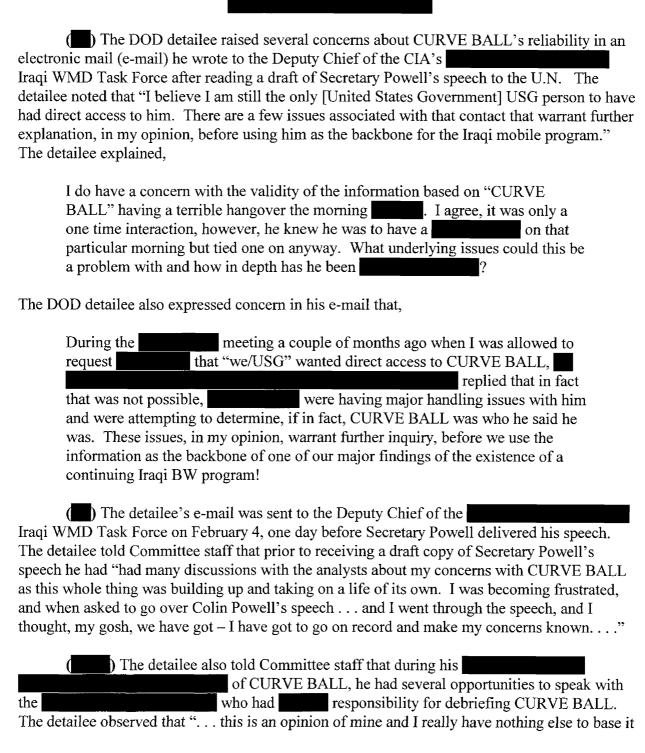
Imagery analysts used this information to identify what they assessed to be the locations in Iraq described by CURVE BALL. In interviews with Committee staff, IC analysts indicated that they viewed the identification of the sites on imagery, and the fact that buildings were accommodate the mobile production plants as described by CURVE BALL, as corroboration of CURVE BALL's reporting. A CIA BW analyst told Committee staff that "we were able to identify the sites he had named to be agricultural sites housing these mobile plants. Stuff like that looked like more corroboration to us at the time." The CIA BW analyst also noted that while the IC was confident that it had identified the seven sites that CURVE BALL was discussing, "when we reviewed the imagery we couldn't find any evidence of the [mobile BW production] plants being there.
(The NIE's discussion of the mobile biological production units concluded with the estimate that if all seven units were operational, Iraq would take " approximately 14 to 26 weeks to produce the amount UNSCOM assessed was actually produced prior [to] the Gulf War."
1. Other Sources
The NIE stated that the information concerning Iraq's efforts to build mobile BW production facilities " tracks with evidence that Iraq in the mid-1990s was considering a mobile fermentation capability, "The evidence is described in a December 1996 HUMINT report that provided a translation of two Iraqi handwritten notes . The report described how the undated notes were written on Iraqi Military Industrial Corporation letterhead found in late 1995 and provided a summary of their contents:
- 150 -

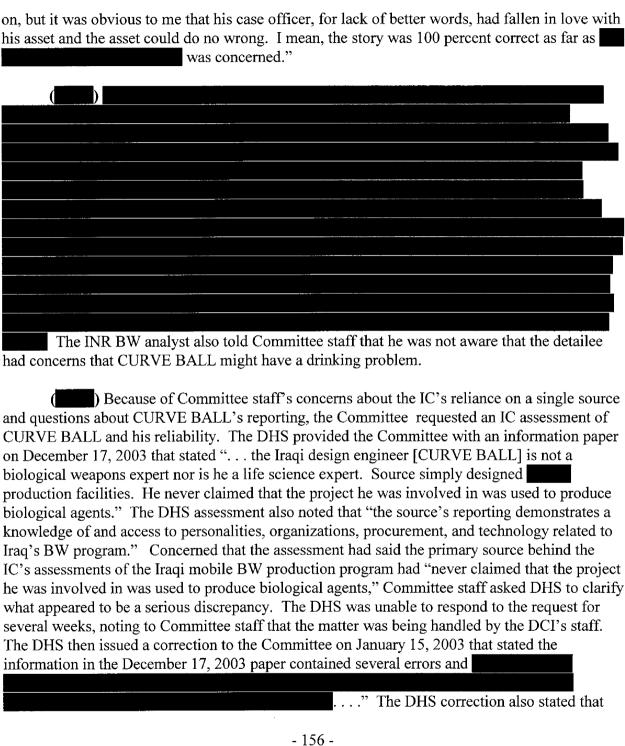


Asylum seeker
sources upon which the IC relied to build its assessments concerning Iraq's mobile BW production program. Those sources were CURVE BALL, the INC source, and .
2. CURVE BALL
. A CIA BW analyst told Committee staff that the translation process used to debrief CURVE BALL led to some misunderstandings. CURVE BALL spoke in English and Arabic, which was translated into a Western European language.
DHS officers translated the reports back into English before transmitting them to the Intelligence Community.



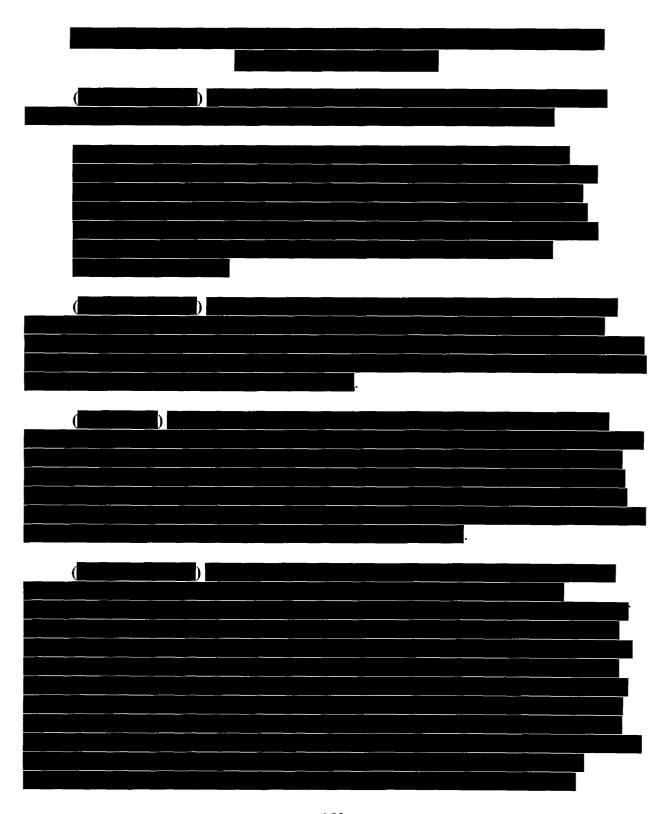


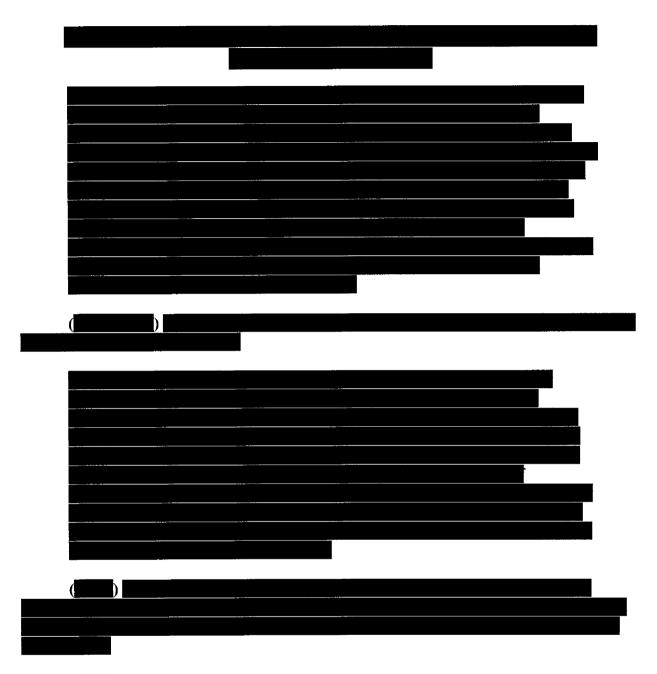




"by virtue of his position, and as reflected in the published Intelligence Information Reports, the source demonstrated extensive knowledge of Iraq's BW program. As the project manager, he had intimate details of the mobile BW program." The author of the December 2003 DHS paper which stated that CURVE BALL "never claimed that the project he was involved in was used to produce biological agents" was the DHS intelligence officer who had primary responsibility for collecting and reporting the intelligence from CURVE BALL's debriefings. In an interview with Committee staff, the DHS officer stated that in his haste to provide an assessment of the source to the Committee, he had misread some of the intelligence reports from the source.







(Committee staff asked a U.S. Department of Defense (DoD) polygraph expert with 29 years of experience with polygraph examinations about the possibility of a "false negative" resulting from a polygraph examination. A false negative is when a subject who is telling the truth is judged to be deceptive on a polygraph. The DoD polygraph expert told Committee staff that in regard to polygraph examinations, "anything could always be a false positive or a false negative. The polygraph is not 100 percent accurate and will never be 100

percent accurate, because we're dealing with the psychology and the physiology of the individual."

.

stated that in mid-1996 Iraq decided to establish mobile laboratories for BW agent research to evade UNSCOM inspections. The NIE described the source by name and noted that he was an "Iraqi defector associated with the Iraqi National Congress." He had defected from Iraq in late 2001, and was brought to the attention of the DIA by Washington-based representatives of the INC in February 2002. After several meetings with the INC source, a DIA debriefer assessed that some of the information he provided ". . . seemed accurate, but much of it appeared embellished." The DIA debriefer believed that ". . . the source had been coached on what information to provide." The DIA's report from the INC source, however, described him as a "first time reporter who is considered reliable" and does not note the debriefer's concerns that he had been coached or that he had embellished information. The report also stated that the "source passed a DHS-administered polygraph regarding information included in this report."

4. INC Source

) In April 2002, the CIA published an assessment of the INC source that stated that DHS had terminated contact with him after four meetings because of suspicions he was a fabricator. In May 2002, DIA issued a "fabrication notice" which said that the information the INC source provided was "assessed as unreliable and, in some instances, pure fabrication." A DIA investigation of this source that resulted in the fabrication notice, questioned the source's truthfulness and noted that the "... information is now considered suspect." Although the source passed "an issue-specific DIA administered polygraph examination, DIA's discussions with the examiner indicate that some areas were not fully explored, which could account for the potential fabrication." In July 2002, the National Intelligence Officer for Near East and South Asia provided the Assistant Secretary of State for Near Eastern Affairs with an assessment of Iraqi defectors who had been brought to the attention of the IC by the INC and noted the concerns the DIA and the had about the source's reliability. Despite the April 2002 CIA assessment, the May 2002 fabrication notice and the July 2002 assessment suggesting the source may have fabricated information, the source was highlighted in the October 2002 NIE, and he was one of the four HUMINT sources specifically referred to in the part of Secretary Powell's February 2003 speech before the UN Security Council that discussed the mobile BW production units.

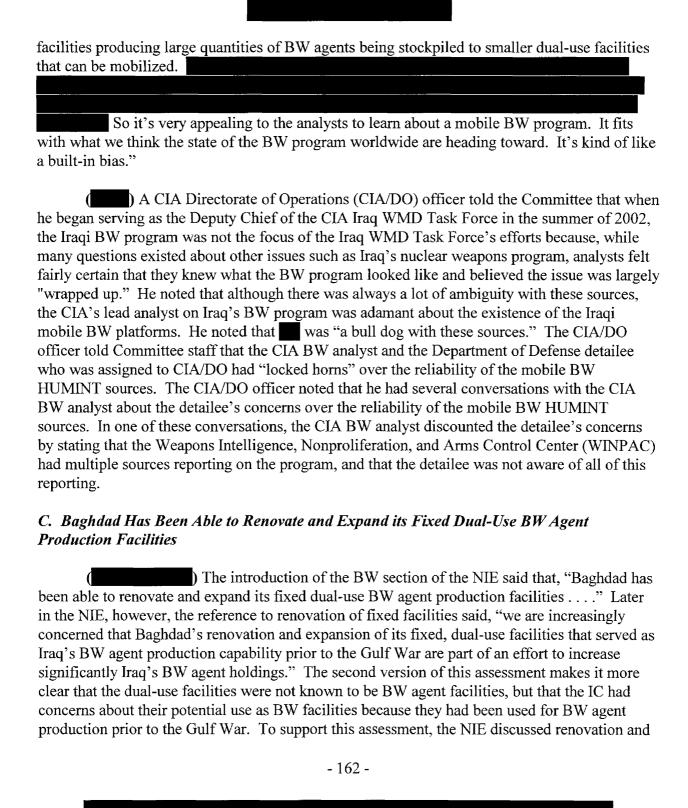
() 5.

Although he was not specifically referenced in the text of the NIE, the IC also provided the Committee with an intelligence report from the debriefing of another Iraqi asylum seeker

The June 2001 report, which is the only report from this source that discussed mobile BW units, stated that there were transportable facilities for the production of biological weapons mounted on trailers at a special armaments factory in Iraq, and that there were other Iraqi sites where biological weapons were produced. The detailee also expressed concern about this source in his e-mail concerning Secretary Powell's UN speech. He noted that the source was "Secretary Powell's UN speech. He noted that the source was that needed further checking. The detailee added, "we sure didn't give much credence to this report when it came out. Why now?" The detailee's e-mail was written four months after the NIE was published.

6. Intelligence Community Mind Set Concerning Mobile BW Programs

(An INR BW analyst told Committee staff that ". . . as a community the U.S. BW analysts generally think that BW programs historically have shifted from large-scale fixed



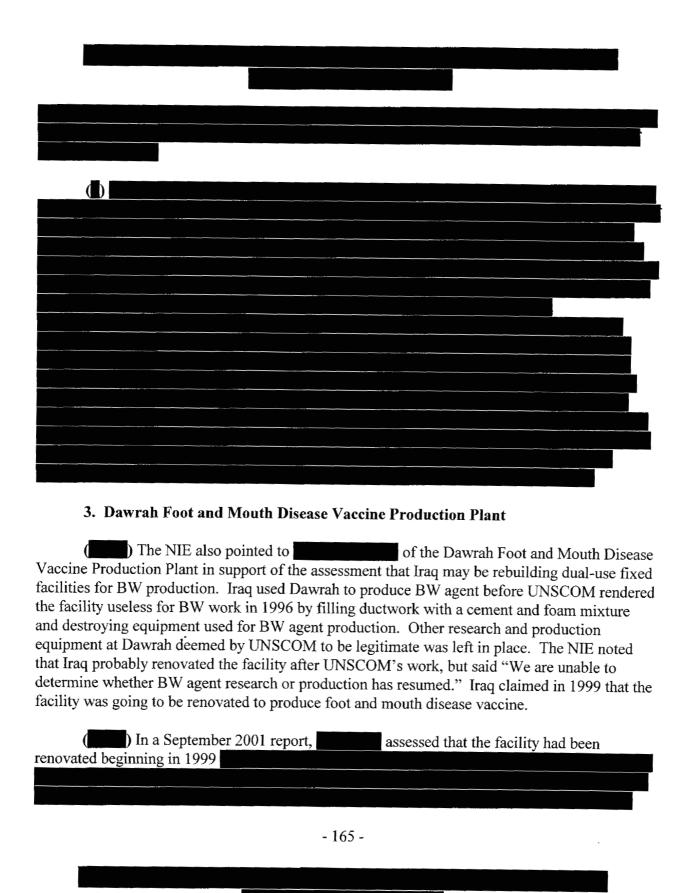
expansion activity at three fixed, dual-use facilities: the Amiriyah Serum and Vaccine Institute, the Habbaniyah I Castor Oil Plant, and the Dawrah Foot and Mouth Disease Vaccine Production Plant.

1. Amiriyah Serum and Vaccine Institute

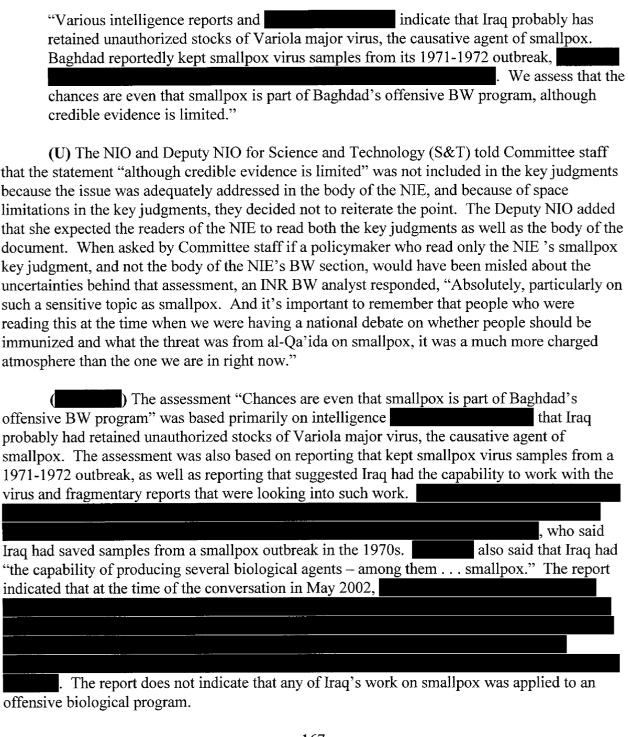
The NIE noted that increased activity and construction at Iraq's Amiriyah Serum
and Vaccine Institute has been observed since at least 2000 "suggesting more
than pharmaceutical production or distribution is taking place."
(The IC provided the Committee a National Imagery and Mapping Agency
(NIMA) ²⁴ report that described of Amiriyah from April 1999 to November
2001, which stated that the facility remained active during this period and may have increased its
level of operations.
The report said that these changes may represent changes in the facility's operations.
TI NIE's discussion of Aministrals also states that "Iragi gaigntists reportedly
The NIE's discussion of Amiriyah also states that "Iraqi scientists reportedly
conducted quality testing at this site on BW agents produced in the mobile production units, A HUMINT report from
CURVE BALL, who provided the majority of the intelligence
reporting concerning the mobile BW program,
reporting concerning the moone by program,
() In discussions with Committee staff, both CIA and DIA BW analysts said they
assessed that the changes at the facility suggested Amiriyah was active, but said the
assessed that the changes at the lateral formation of the lateral

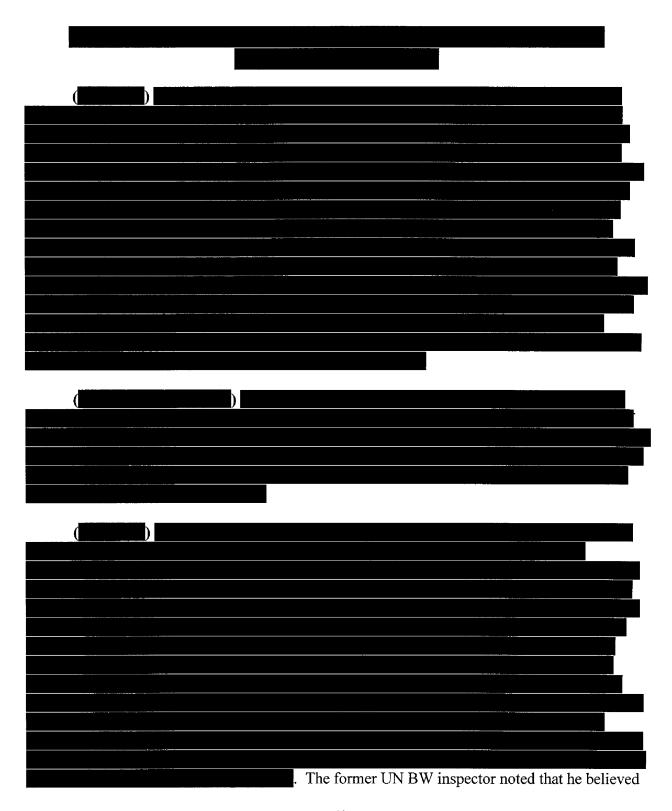
²⁴NIMA has recently been renamed the National Geospatial- Intelligence Agency (NGA).

activity could have been consistent with legitimate pubic health related activity. A CIA Iraq
analyst also told Committee staff that in the late 1990's and in the 2000 to 2002 period Iraq did have "some huge vaccination campaigns," particularly against polio and foot and mouth disease (FMD). A CIA BW analyst also told Committee staff that she was not aware of any effort in the IC to analyze the impact of those mass vaccination campaigns on dual-use facilities like the Amiriyah Serum and Vaccine Institute.
·
2. Habbaniyah I Castor Oil Plant
The NIE noted that the Habbaniyah I Castor Oil Plant, which was damaged during Operation Desert Fox in 1998 because it was assessed to be involved in the production of the biotoxin ricin, was rebuilt by early 2000. The NIE said, "The facility continues to extract oil from the castor beans, allegedly for use in brake fluid production.
The NIE stated that while the extraction of castor oil is a legitimate activity, the bean mash that is left over contains the BW agent ricin. The IC assessed that ricin was probably not being extracted at the castor oil plant but said concurrent activity at the nearby main production building, "suggests that toxin extraction may be taking place in the main production building."
- 164 -



As noted in the NIE, the report said it was unclear whether the possible restart of the plant was related to Iraq's BW program or was for legitimate vaccine production.
told Committee staff that Iraq may have had a legitimate need for foot and mouth disease (FMD) vaccine because for years the U.S. had vetoed Iraqi requests under the UN Oil for Food program for FMD vaccines based on suspicion that these materials were intended for BW purposes. The U.S. Government (USG) and IC later learned that Iraq had in fact had an FMD outbreak, prompting the USG to start approving Iraqi imports of FMD vaccinations in 1999. The USG, as a member of the UN Iraq Sanctions Committee, rejected a proposal from the Iraqis and the UN Food and Agriculture Organization to rehabilitate Dawrah because the USG believed that was able to import as many FMD vaccines as it needed.
The information that Iraq may have had legitimate public heath reasons to restart the Darwah plant was not included in the NIE.
D. We Assess That Iraq Has Some BW Agent and Maintains the Capability to Produce a Variety of BW Agents
(U) The NIE stated that "we assess that Iraq has some BW agent and maintains the capability to produce B. anthracis, botulinim toxin, aflatoxin, Clostridium perfringerns (gas gangrene) and ricin toxin." The NIE also noted that Iraq "may be able to produce a number of other incapacitating and lethal agents that it has researched over the years" and assessed that "Chances are even that smallpox is part of Baghdad's offensive BW program."
1. Smallpox
(The 2002 NIE stated in the key judgments that "Chances are even that smallpox is part of Iraq's offensive BW program." The body of the 2002 NIE expanded on this assessment:





that the quantity of dry agent the machine could produce was too small to be very useful in a biological weapons program and stated that "I don't think that machine was designed to dry smallpox to make weapons material. That would be a hard way of doing it." CIA BW analysts told Committee staff that they believed any quantity of dry agent would be useful in a biological weapons program.

(Another HUMINT report from February 2000 discussed reported research conducted at a facility run by the Iraqi Intelligence Service in Abu Ghurayb, near Baghdad, involving a number of agents including smallpox.
No mention is made in the report about whether the reported efforts at Abu Ghurayb were successful in creating a delivery method for smallpox.
One of the reports said an Iraqi scientist had "published on pox viruses described Iraqi work on "a poxvirus such as monkey pox." A third report said Iraq worked on camel pox virus. None of the reports referenced smallpox.
One report provided to the Committee suggested that, at least as of 1991, smallpox was not a part of Iraq's offensive BW program.
. CIA BW
analysts also told Committee staff that they believed that work on camelpox would give Iraq the capability to work on smallpox if they had it.

(U) In a written response to a question from Committee staff, the CIA said "We have no evidence that Iraq ever weaponized smallpox." The NIE's assessment that, "Chances are even

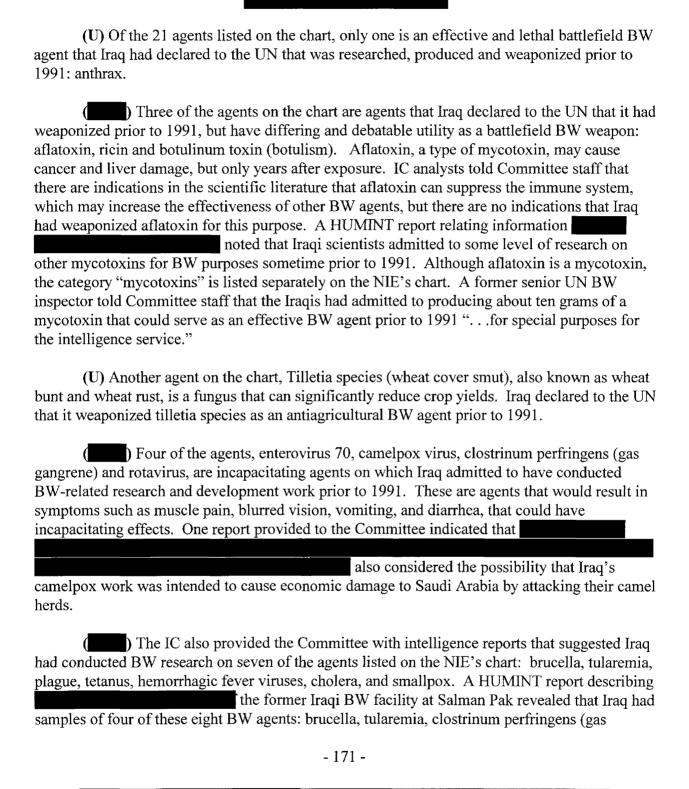
that smallpox is part of Iraq's offensive BW program," was based on the intelligence indicating that it was likely within Iraq's ability to produce smallpox agent.

2. Other Agents

(U) The NIE also noted that "Iraq has some BW agent and maintains the capability to produce B. anthracis, botulinim toxin, aflatoxin, Clostridium perfringerns (gas gangrene) and ricin toxin" and that Iraq "may be able to produce a number of other incapacitating and lethal agents that it has researched over the years." To show which agents Iraq has researched, the NIE included a table titled "BW Agents that Iraq has Researched." The table listed twenty one biological agents that Iraq had researched. While some of the agents listed on the chart are highly lethal agents that Iraq had confirmed it weaponized prior to 1991, others do not appear to have been researched for weapons purposes, while others have little or no utility in a BW program.

(U) BW Agents that Iraq has Researched

Bacillus anthracis (anthrax)	Enterovirus 70 (acute hermorrhagic conjunctivitis)
Botulinum toxin (botulism)	Camelpox virus
Ricin	Rotavirus
Clostridium perfringens (gas gangrene)	Vibrio cholerae (cholera)
Yersinia pestis (plague)	Clostridium tetani (tetanus)
Brucella melitensis (brucellosis)	Hemorrhagic fever viruses
Variola major virus (smallpox)	Staphylococcal enterotoxins
Burkholderia mallei (glanders)	Rickettsia prowazekii (typhus)
Aflatoxin	Francisella tularensis (tularemia)
Mycotoxins	Shigella dysenteriae (dysentery)
Tilletia species (wheat covered smut)	

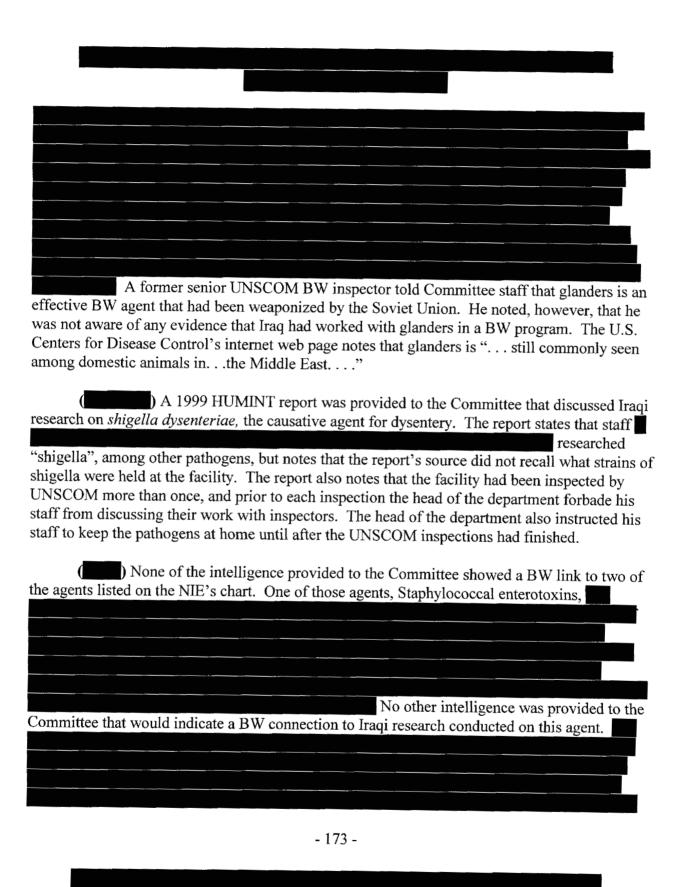


gangrene), and tetanus.

A 1999 HUMINT report describes an order given by Hussein Kamal
in 1994 to conduct research on, among other topics, tetanus. When
asked why the military was interested in "public and animal health issues" Kamal told them that
the work was for "Iraq's biological warfare program."

(U) As noted in the preceding discussion concerning smallpox, the last of the eight BW agents, the only report provided to the Committee which provided a Iraqi BW link to this agent was a February 2000 HUMINT report which discussed reported research conducted at Abu Ghurayb, near Baghdad, involving a number of agents including smallpox. The report that said experiments had reached an advanced stage and were moving into the "production phase" and noted that in 1995 one of the researchers commented that tests at the facility focused on how to introduce materials into soft drinks and "other mediums." One of the specific projects undertaken was to produce lethal pills. No mention is made in the report about whether the reported efforts at Abu Ghurayb were successful in creating a delivery method for smallpox.

() Two reports provided to the Committee discussed glanders, an agent listed on the NIE's chart.



(U) A chart in a CIA paper published one month after the NIE that was titled, *Iraq:* Biological Warfare Agents Pose Growing Threat to US Interests, presented another depiction of Iraq's biological agent research. The chart titled, "Status of Possible Iraqi BW Agents" showed three levels of research activity – research and development (R&D), production, and weaponization – and provided three different levels of confidence of the IC's knowledge of Iraq's work – confirmed, probable and suspected. This chart presented a more accurate depiction of the certainty and uncertainty behind the assessments of Iraq's biological agent research and made clear which agents were researched for weapons purposes. The title of the chart in the NIE, "BW Agents that Iraq has Researched" suggested that all of the agents were researched for weapons purposes, while the CIA publication more clearly indicated that the agents were "possible" BW agents.

(U) Status of Possible Iraqi BW Agents

Note: Agents are not listed in any particular order. Assessments reflect past Iraqi declarations to the UN plus intelligence assessments of Iraq's current biological weapons capabilities.

C=Confirmed P=Probable S=Suspected

BW Agent (Disease)	R&D	Production	Weaponization
Bacillus anthracis (anthrax)a	С	С	С
Aflatoxins ^a	С	С	С
Botulinum toxins ^a	С	С	С
Ricin toxin ^a	C	С	С
Clostridium perfringens (gas gangrene)a	С	С	
Tilletia species (wheat cover smut)a	С	С	
Yersinia pestis (plague)	P	P	
Variola major virus (smallpox)	P		
Burkholderia mallei (glanders)	Р		
Rickettsia prowazekii (typhus)	S		

BW Agent (Disease)	R&D	Production	Weaponization
Enterovirus 70 (acute hemorragic conjunctivitus) ^a	С		
Rotavirus ^a	С		
Staphylococcal enterotoxins	Р		
Trichothecene mycotoxins ^a	C		
Brucella melitensis (brucellosis)	Р		
Clostridium tetani (tetanus)	P		
Camelpox virus ^a	С		
Vibrio cholerae (cholera)	Р		
Hemorrhagic fever viruses	S		
Shigella dysenteriae (dysentery)	S		
Francisella tularensis (tularemia)	S		

^a Iraq declared to UNSCOM that it worked with this BW agent.

E. In the Absence of UN Inspectors, Iraq Probably Has Intensified and Expanded Research and Development in Support of Iraq's BW Program. Baghdad Probably Has Developed Genetically Engineered BW Agents

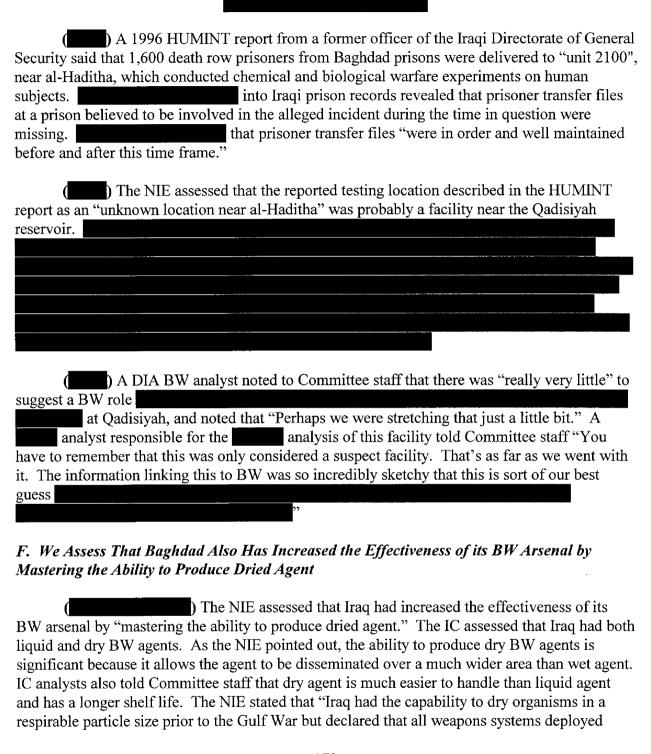
(The NIE assessed that in the absence UN inspectors, Iraq probably had intensified and expanded research and development efforts in support of Iraq's BW program. The NIE noted that "Military reporting and intelligence indicates that Iraq's BW research and development efforts have benefitted from professional contacts between its scientists and engineers and their foreign counterparts, exploiting conferences and scientific exchanges to acquire technical knowledge and supplies." The NIE's key judgments stated that "Baghdad probably has developed genetically engineered BW agents." The NIE's discussion of this research and development focuses on research activity the NIE's discussion of this general raq's Qadisiyah Reservoir.

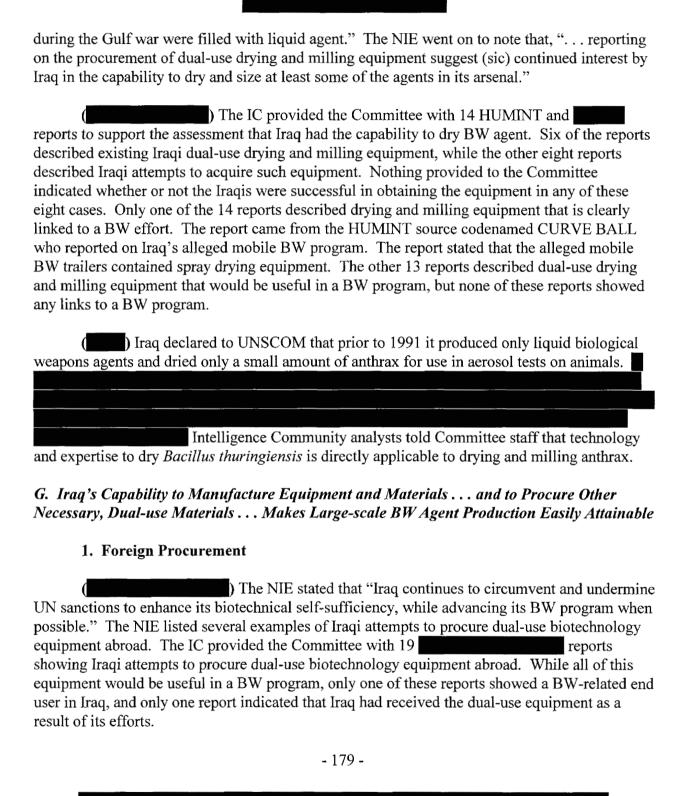
(1) 1. Research Activity) The NIE stated that " in 1999 that R&D in support of Iraq's offensive BW program was continuing . In the absence of UN inspectors, Iraq probably has intensified and expanded these efforts." The NIE stated in the key judgments that "Baghdad probably has developed genetically engineered BW agents." The text of the NIE, however, said only that foreign government service reporting indicated that "biological research facilities are actively engaged in genetic engineering and biotechnology research and development," and noted that some of the facilities were suspected of involvement in Iraq's BW research and development program. However, UNSCOM's final report, which was submitted to the UN Security Council in 1999, stated that "Iraq has a broad based research community in Universities, Medical and Agricultural Institutes, covering microbiology, biological processing, materials science, genetic engineering, pathology, biological production, munitions and weapons.") The IC also provided the Committee with eight intelligence reports to support the assessment that Iraq was engaged in genetic engineering and biotechnology research. The first was a 2002 HUMINT report that discussed information The report provided no additional information. The NIE noted that IPA is the parent organization for a center that was engaged in BW related work prior to the Gulf War. A second HUMINT report stated that two scientists were conducting "secret research" in the microbiology laboratory at the Saddam College of Medicine. The report said the scientists were working to genetically alter anthrax and plague to increase the bacteria's resistance to "antibiotics and environmental factors." While the work was described as "secret," the report did not draw any link to BW work. The CIA told Committee staff that, while the report did not connect this research to BW work, the CIA believes that there is no legitimate application to this work outside of a BW program. A DIA BW analyst told Committee staff that there were legitimate non-BW reasons for conducting such research. He noted, however, that such research was suspicious in a country like Iraq. CIA BW

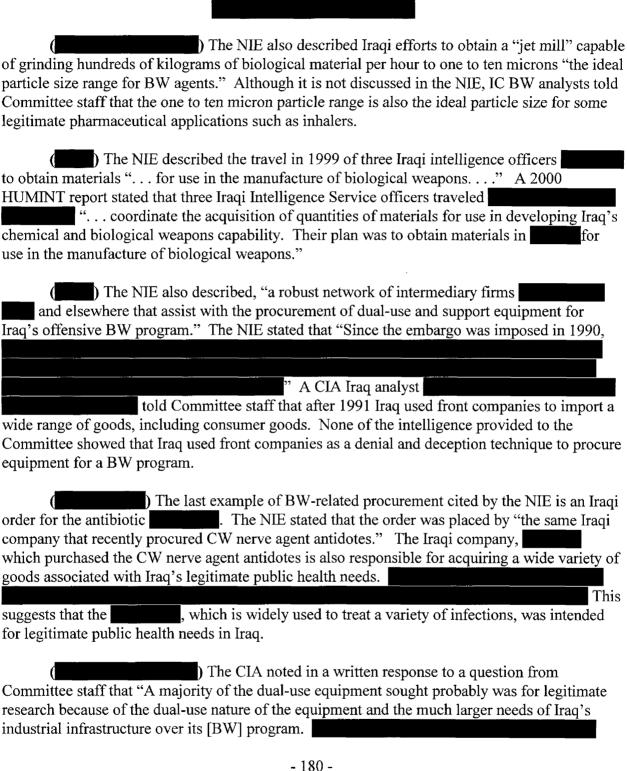
analysts told Committee staff that this research was particularly suspicious because it was

"secret."

(U) A third report was from a 1997 DIA HUMINT source who said that an Iraqi post-graduate microbiology student, who the source alleged was an officer in the Iraqi Special Security Organization (SSO), was conducting research to genetically manipulate the cholera toxin. The source believed the goal was to produce an offensive BW weapon. Another report provided a research paper from the same student published in 1997 which discussed transferring the gene encoding tetanus toxin from <i>clostridium tetani</i> to <i>e. coli</i> and <i>bacillus subtilis</i> "in order to research the antibiotic resistant qualities of the <i>clostridium tetani</i> strains." The only connection between this research and BW is the source's allegation that the post-graduate microbiology student is an SSO officer. A DIA BW analyst told Committee staff, while such research could be useful to a BW program, it also has a legitimate public health application in determining what antibiotics are most effective in treating particular strains of the pathogen.
Additional HUMINT reporting described a microbiology research paper written by a cholera and the work of an unnamed researcher working on a project to discover a cholera strain immune to antibiotics. The source of the report said that the researcher was rumored to have close ties to Iraq's intelligence service and to be a member of the Ba'th party.
2. Reported BW Testing Near Qadisiyah Reservoir
() The NIE also stated that "Iraq may have tested BW agents at a facility near the Qadisiyah Reservoir in western Iraq, according to reporting," and that "an







DIA BW analysts interviewed by Committee staff all agreed that in every case cited by the NIE of Iraqi attempts to obtain dual-use biotechnical equipment abroad, the Iraqis could have been seeking equipment for their legitimate needs. As a CIA BW analyst noted "There was nothing that was uniquely BW..." A CIA BW analyst stated that none of the equipment and materials required for a BW program were exclusively BW in nature, and said that the IC did not have a specific case where it could provide intelligence that showed that a piece of dual-use biological equipment or material sought by Iraq was clearly intended to go to an Iraqi BW-related end user. The Deputy Director for Analysis at the DCI's Center for Weapons Intelligence, Nonproliferation, and Arms Control told Committee staff that "... if you look at every individual dual-use procurement, if your question is, are there any of these procurements that we saw that can't be explained by a potential legitimate application ... I think the answer to that probably is no."

2. Indigenous Iraqi Efforts

(The final part of the NIE's section concerning Iraq's ability to obtain dualuse biological equipment and production capabilities stated that "We assess that Iraq also maintains the capability to manufacture some BW-related equipment and materials indigenously." The IC provided the Committee with several reports and an abstract of a paper published in a European science journal that showed dual-use biotechnical capabilities inherent in Iraqi industry that could potentially be converted for use in an offensive BW program.

- (U) While all of the examples in the NIE have potential application to the Iraqi BW program, and while some of the organizations involved were connected to the pre-1991 Iraqi BW program, only one of the reports has a clear link to a post-1991 BW program. The report came from the HUMINT source codenamed CURVE BALL who reported on Iraq's alleged mobile BW program. According to this report, CURVE BALL stated that fermenters and tanks in the mobile production units had been made in Iraq.
- (U) When asked by Committee staff whether the 2002 NIE did a good job of explaining the possibility that some, most or all of the examples cited in the NIE of dual use biological research and procurement could have been intended for legitimate, non-BW uses, a senior INR analyst stated, "I think, to answer your question, someone who is not an expert in weapons of mass destruction, if I were coming to the issue and they said here, read this Estimate on Iraq's weapons of mass destruction program, even if you have a discussion of dual-use applicability I think that I would come to the conclusion that, well, it must be really for WMD stuff because it's

in this Estimate that talks about Iraq's WMD. So even if it has a legitimate application in civilian industry, the presumption that I would come to the document with as a lay reader in what was then the environment, I assume, of policymakers or Hill policymakers, my assumption would be that I would think it was for [chemical-biological weapons] use."

H. The Nature and Amounts of Iraq's Stored BW Material Remain Unresolved by UNSCOM Accounting

- (U) The NIE stated that "The nature and amounts of Iraq's stored BW material remain unresolved by UNSCOM accounting." The NIE went on to state that "From the end of the Gulf war to mid-1995, Iraq denied that it had an offensive BW program, claiming that it had conducted only 'defensive research.' Only after UNSCOM confronted Baghdad with irrefutable evidence of excessive growth media procurement did Iraq admit that it had an offensive BW program and had made 30,000 liters of concentrated biological weapons agents. Even then, UNSCOM estimates that Iraq's production of anthrax spores and botulinum toxin could have been two to four times higher than claimed by Baghdad."
- (U) UNSCOM's final report noted that Iraq "categorically denied" it had a BW program from 1991 to 1995 and took "active steps to conceal the program" from UNSCOM. "In 1995, when Iraq was confronted with evidence collected by the Commission of imports of bacterial growth media in quantities that had no civilian utility with Iraq's limited biotechnology industry, it eventually, on 1 July 1995, acknowledged that it used this growth media to produce two BW agents in bulk, botulinum toxin and Bacillus anthracis. . . ."
- (U) The NIE described Iraq's inability to substantiate claims that a large amount of growth media was lost in failed production runs or stolen from the high security BW facility at Al-Hakam and other sites. UNSCOM's final report listed the growth media as an unresolved accounting issue, and IC analysts told Committee staff that they did not believe that it is possible that growth media could have been stolen from a facility like Al-Hakam. A former UN inspector told Committee staff, however, that he found it believable in light of the chaos and looting that followed immediately after the defeat of the Iraqi army in 1991. He noted that Iraqi guards abandoned their posts at many Iraqi government facilities. When asked why an Iraqi would want to steal growth media, he noted that there was not necessarily any logic to looting.
- The NIE also described Iraq's failure to provide adequate proof that it destroyed 157 aerial bombs it had filled with BW agent. The UNSCOM final report stated that inspectors were unable to verify both how many aerial bombs existed and how many were actually destroyed.

The NIE noted that "Iraq claimed that it produced four aerosol spray tanks by modifying a Mirage F-1 fuel drop tank. We have no evidence that the Iraqis destroyed these tanks,

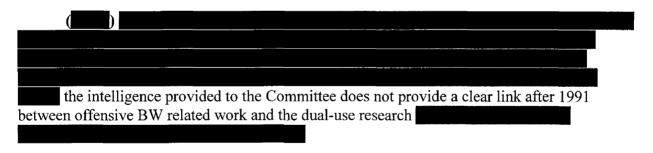
While

the UNSCOM report noted that inspectors were not satisfied that the prototype drop-tank was destroyed, "The remains of the other three drop-tanks were inspected by the Commission." The UNSCOM final report also noted that "There is no evidence to corroborate that only four were produced. Interviews indicate that 12 tanks were to be modified."

(U) The NIE stated that UNSCOM's final report indicated that "... about 20 mobile double-jacketed storage tanks, which we judge may contain previously produced agent, remain unaccounted for." UNSCOM's final report states that "20+ tanks remain unaccounted for." The report noted that these tanks "were used to transfer agent between production and filling or deployment site and for storage of agent. Owing to their properties, they can be used for long-term storage of agent under controlled conditions..."

I. We Judge That We Are Seeing Only a Portion of Iraq's WMD Efforts, Owing to Baghdad's Vigorous Denial and Deception Efforts

(U) One of the NIE's key judgments stated, "We judge that we are seeing only a portion of Iraq's WMD efforts, owing to Baghdad's vigorous denial and deception efforts." The NIE's BW section contained a text box titled "Iraq's Denial and Deception (D&D) Program for Biological Weapons." The first sentence of the box stated that "Iraq has a national-level BW D&D program."



The NIE also states that "Iraq uses codewords to compartmentalize BW program elements, conceal acquisition of BW-related equipment, and impair Western attempts to monitor Iraqi technology acquisition." The NIE cited the use of the codeword "project 600" for BW activity at Iraq's Abu Ghurayb facility, which was in use before the 1991 Gulf War. The Committee was provided with six HUMINT reports concerning the use of codes:

- A 1993 HUMINT report describing the use of the code word "project 600" for BW activity at Iraq's Abu Ghurayb facility before the 1991 Gulf War.
- A 1997 HUMINT report described the use of the codename "313" with the Djerf al Nadaf facility. While Djerf al Nadaf may have a BW connection, the use of a code for this facility is not necessarily specific to BW.
- A report from the HUMINT source code named CURVE BALL who provided most of the IC's understanding of the mobile production capability states that letters were used to describe agents produced in mobile plants.
- A 2000 HUMINT report described the use of letter-number codes to refer to BW agents. UNSCOM's final report notes that Iraq referred to BW agents with letter code designation in its declarations to the U.N.
- A 2000 HUMINT report that discussed research allegedly underway as of 1997 at a facility run by the Iraqi Intelligence Service in Abu Ghurayb, near Baghdad, focused on how to introduce a number of BW agents into soft drinks and "other mediums." The report stated that the facility's reports referred to BW agents by letter-number codes.
- (U) The intelligence provided to the Committee describes the use of codewords to "compartmentalize BW program elements" but no intelligence reports were provided that described the use of codewords to "conceal acquisition of BW-related equipment, and impair Western attempts to monitor Iraqi technology acquisition." While code words are a denial and deception measure, no intelligence was provided to the Committee that showed an Iraqi "national-level BW D&D program" existed in 2002, as stated in the NIE.

J. Explaining Uncertainties

(U) The NIE provided a "tone box" that listed the IC's "confidence levels for selected key judgments in this estimate." The NIE's key judgments are broken down into three categories of high, moderate and low confidence. Assessments related to Iraq's BW capabilities listed under the "High Confidence" heading are:

- "Iraq is continuing, and in some areas expanding, its chemical, biological, nuclear and missile programs contrary to UN resolutions."
- "We are not detecting portions of these weapons programs."
- "Iraq possesses proscribed chemical and biological weapons and missiles."
- (U) There were no assessments of Iraq's BW capabilities listed under the "Moderate Confidence" or "Low Confidence" headings. Nowhere in this section, or anywhere else in the NIE, is the possibility explicitly raised that the majority or all of the dual-use biotechnology issues discussed in the NIE's BW section could represent legitimate public health activity.

K. Intelligence Agencies' Analysis of Iraq's Biological Weapons Program Prior to Publication of the NIE

- (U) Analysis from individual intelligence agencies on Iraq's biological weapons program was consistent between agencies and largely consistent with the NIE and other IC products discussed earlier in this report. The following are examples of assessments from the DIA and the CIA. INR told the Committee that it did not publish any specific intelligence papers on Iraq's BW program.
- (U) In October 1997, the DIA published a Defense Intelligence Assessment, *Iraq's Weapons of Mass Destruction Programs: Progress, Problems, and Potential Vulnerabilities* which stated that "Iraq may have successfully concealed some biological agents. It retains much of its biotechnical infrastructure and is positioned to weaponize biological warfare (BW) agents at pre-Gulf War levels in 2 years or less after sanctions are lifted." The paper noted that Iraq's ". . . dual-use-type facilities give Iraq the capability to produce biological agents and plausible deniability of a biological weapons program," but "no active BW facilities are currently identified. . . ."
- (U) In January 2002, the DIA published a Defense Intelligence Assessment, *Iraq's Weapons of Mass Destruction and Theater Ballistic Missile Programs: Post-11 September*, which stated "Some aspects of Iraq's biological warfare (BW) program are active, and most elements are probably larger and more advanced than they were in the pre-Gulf War program. Iraq is capable of producing and weaponizing a moderate spectrum of BW agents for a moderate range of delivery systems. UN sanctions imposed after the Gulf War did little to prevent Saddam from equipping and operating the program." The paper also notes "Iraq has gone to great lengths

to conceal its BW production, reportedly using mobile trailers" and that "several BW-associated facilities have recently undergone renovation and construction. These facilities may have provided additional capabilities and support to the BW infrastructure."

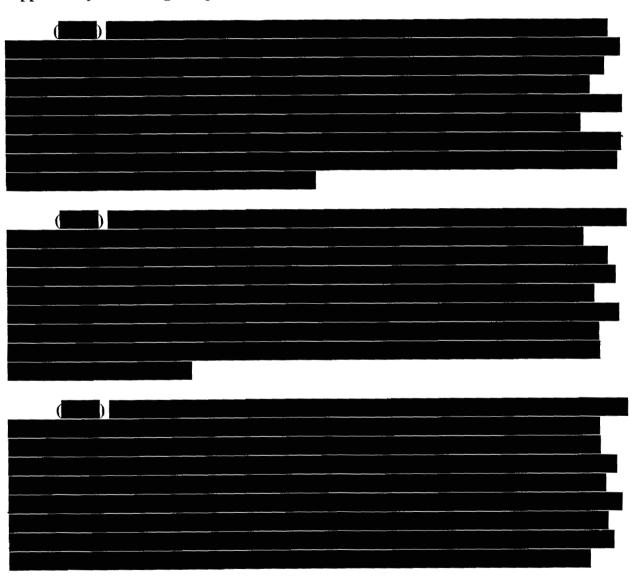
Operational Support Study in September 2002 which said, referring to bulk biological agent-filled munitions that Iraq claimed to have destroyed in 1991, "... Iraq never provided credible evidence to support this claim. The location, nature, and condition of this [BW] stockpile, and the seed stocks and growth media for biological agent production are unknown." The paper stated that

The paper also noted that "Iraq is assessed to possess biological agent stockpiles that may be weaponized and ready for use. The size of those stockpiles is uncertain and is subject to debate. The nature, size and condition of those stockpiles are also unknown."

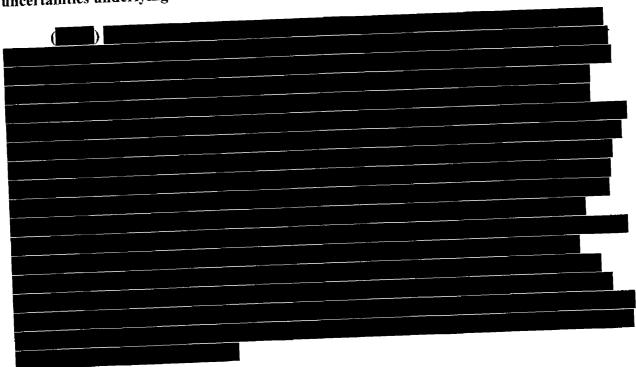
- (U) A September 2002 DIA Information Paper with the subject line, *Iraqi Interest in Smallpox as a Biological Warfare (BW) Agent*, states that the "DIA assesses it is possible that Iraq possesses samples of the smallpox virus. However, whether Iraq is actually producing smallpox agent in quantities or where it could be produced is unknown."
- (U) The CIA published a paper in August 1996 titled *Iraq's Remaining WMD Capabilities*, stated "Baghdad has provided no compelling evidence to buttress its claim that all its BW agents and munitions were destroyed in the spring of 1991. Even if Iraq's claims were true, its BW expertise could enable it to rapidly resurrect a small-scale BW program."
- (U) In October 2002, CIA published a paper titled Saddam's Timelines for Using WMD, which stated that "Based on Iraqi declarations and a variety of intelligence reporting, we judge Iraq has some lethal and incapacitating biological agents and is currently using fixed facilities to quickly produce and weaponize a variety of such agents, including Bacillus anthracis (anthrax), botulinum toxin, alflatoxin, Clostridium perfringens (gas gangrene), and ricin toxin. Iraq could also use its mobile facilities to produce some bacterial agents."

L. Biological Conclusions

(U) Conclusion 48. The assessment in the October 2002 National Intelligence Estimate that, "[W]e judge that all key aspects – research & development, production, and weaponization – of Iraq's offensive biological weapons program are active and that most elements are larger and more advanced than they were before the Gulf War" is not supported by the intelligence provided to the Committee.

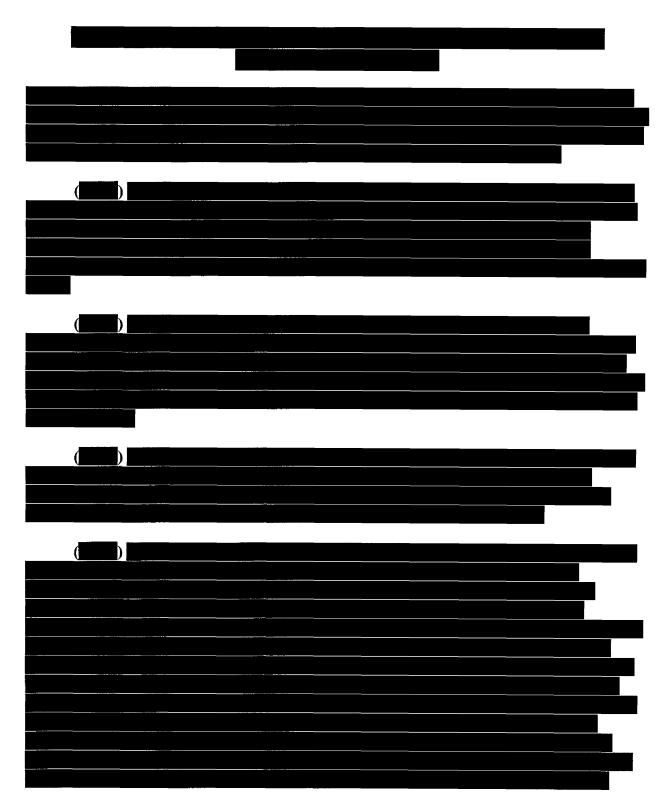


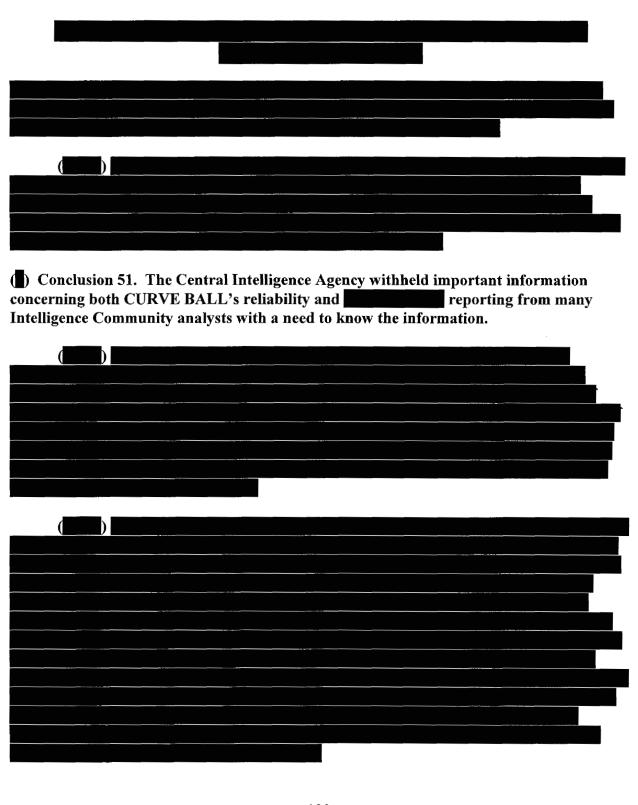
(U) Conclusion 49. The statement in the key judgments of the October 2002 National Intelligence Estimate (NIE) that "Baghdad has biological weapons" overstated what was known about Iraq's biological weapons holdings. The NIE did not explain the uncertainties underlying this statement.

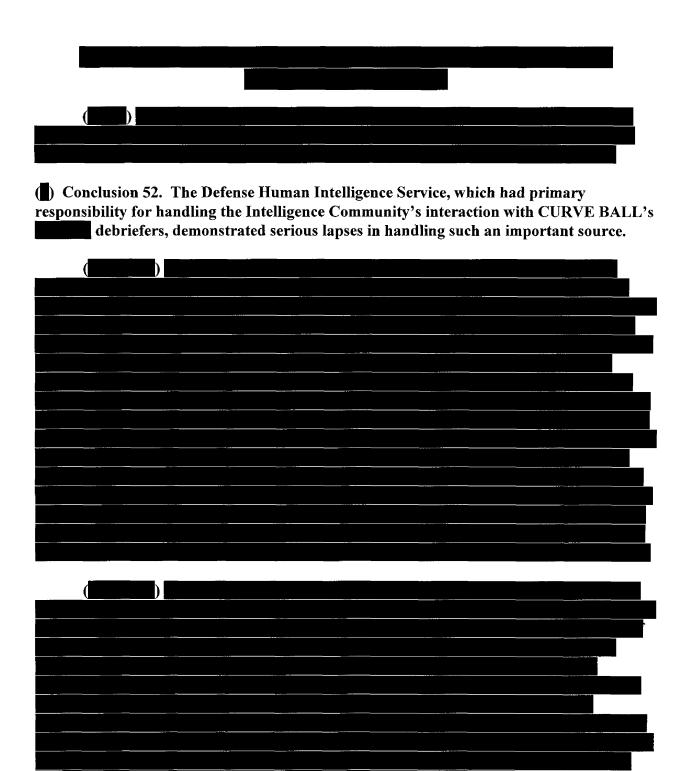


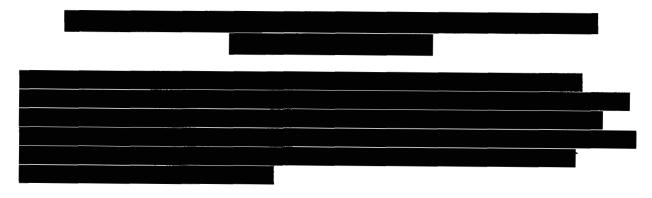
(U) Conclusion 50. The statement in the National Intelligence Estimate that "Baghdad has mobile transportable facilities for producing bacterial and toxin biological weapons agents," overstated what the intelligence reporting suggested about an Iraqi mobile biological weapons effort and did not accurately convey to readers the uncertainties behind the source reporting.



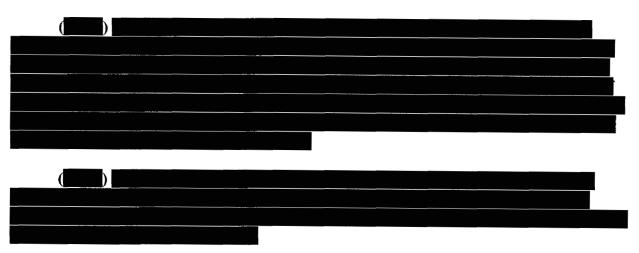




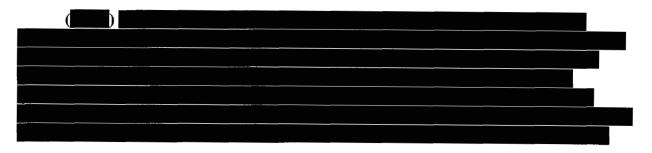


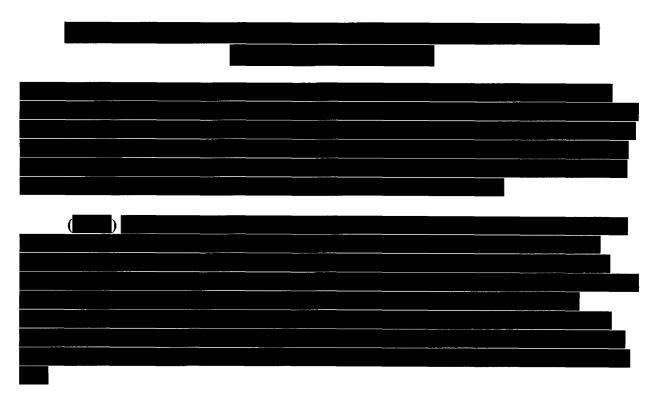


(U) Conclusion 53. The statement in the key judgments of the National Intelligence Estimate that "Chances are even that smallpox is part of Iraq's offensive biological weapons program" is not supported by the intelligence provided to the Committee.

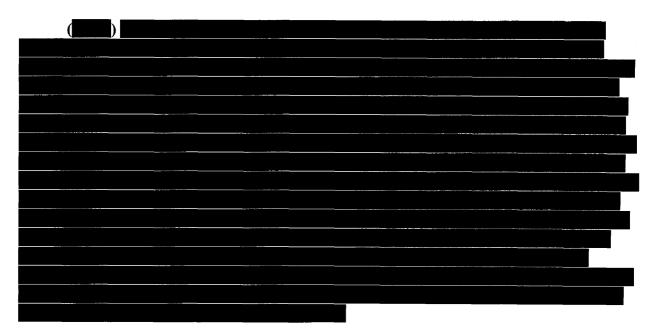


(U) Conclusion 54. The assessments in the National Intelligence Estimate concerning Iraq's capability to produce and weaponize biological weapons agents are, for the most part, supported by the intelligence provided to the Committee, but the NIE did not explain that the research discussed could have been very limited in nature, been abandoned years ago, or represented legitimate activity.

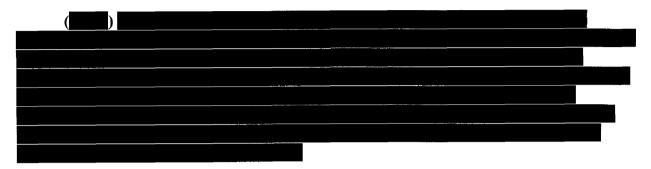




(U) Conclusion 55. The National Intelligence Estimate misrepresented the United Nations Special Commission's (UNSCOM) 1999 assessment concerning Iraq's biological research capability.



(U) Conclusion 56. The statement in the key judgments of the National Intelligence Estimate that "Baghdad probably has developed genetically engineered biological weapons agents," overstated both the intelligence reporting and analysts' assessments of Iraq's development of genetically engineered biological agents.



(U) Conclusion 57. The assessment in the National Intelligence Estimate that "Iraq has... dry biological weapons (BW) agents in its arsenal" is not supported by the intelligence information provided to the Committee.

